

Vermont Mental Health Performance Indicator Project
Agency of Human Services, Department of Health, Division of Mental Health
Weeks Building, 103 South Main Street, Waterbury, VT 05671-1601

MEMORANDUM

TO: Vermont Mental Health Performance Indicator Project
Advisory Group and Interested Parties

FROM: John Pandiani
Stephen Morabito

DATE: December 31, 2004

RE: Section 8 Housing for Adults with Serious Mental Illness

The 2003 report of The President's New Freedom Commission recognized that, "The lack of decent, safe, affordable, and integrated housing is one of the most significant barriers to full participation in community life for people with serious mental illness." (<http://www.mentalhealthcommission.gov/>) Although HUD Section 8 housing programs are frequently criticized, they represent one of the most important efforts to help meet the housing needs of people with serious mental illness.

This week's brief data report provides basic information on the proportion at which adults served by Vermont's Community Rehabilitation and Treatment (CRT) programs during FY2004 resided in HUD Section 8 housing on December 20, 2004. CRT programs provide community mental health services to adults with serious mental illness.

As you will see from the table that follows, more than 1 in 5 CRT service recipients (21%) occupied Section 8 housing at the time of this study. Utilization of Section 8 housing varied substantially by age, with CRT service recipients in the 35-49 year age group having the highest utilization rates (24%) followed by the 50-64 and 18-34 age groups (about 21% each). CRT service recipients in the 65+ age group had the lowest utilization rate (11%). In Vermont's general population, utilization of Section 8 housing varied from 1.7% in the 18-34 age group, to 1.3% in the 50+ age group.

Among CRT service recipients there was no difference between men and women in access to Section 8 housing. In Vermont's general population, women are twice as likely as men to utilize Section 8 housing (1.6% vs. 0.8%).

Two data sets were used in the analysis reported here. One data set, provided by the United States Department of Housing and Urban Development (HUD) Public and Indian Housing Information Center (PIC) (<http://www.hud.gov/offices/pih/systems/pic/>), includes the date of birth and gender of all individuals in Section 8 housing in Vermont on December 20, 2004. The other data set, which includes the date of birth and gender of all individuals served by Vermont's CRT programs, was derived from Monthly Service Reports provided to DMH by designated agencies. Because these data sets do not include unique person identifiers, Probabilistic Population

Estimation was used to determine the unduplicated number of individuals represented in both data sets. The number of individuals represented in both data sets is the number of CRT clients in Section 8 housing.

Probabilistic Population Estimation is a statistical data-mining tool that measures the number of people represented in databases that do not include unique person identifiers, and the number of people shared between these databases. These estimates are based on a comparison of the distribution of dates of birth in the data sets to the known distribution of dates of birth in the general population. Selected papers that provide more detail regarding this approach are referenced below.

We look forward to your interpretation of these findings and your suggestions for further analysis (longitudinal and/or cross sectional) of anonymous extracts from the databases used in this analysis. Send your suggestions and questions to pip@vdh.state.vt.us.

Selected Readings Regarding Probabilistic Population Estimation

Personal Privacy vs. Public Accountability: A Technological Solution to an Ethical Dilemma. *Journal of Behavioral Health Services and Research*, November 1998. (Pandiani, Banks, and Schacht)

Probabilistic Population Estimation of the Size and Overlap of Data Sets Based on Date of Birth. *Statistics in Medicine*, May 2001. (Banks and Pandiani).

Large Data Sets Are Powerful. *Psychiatric Services*, May 2003. (Pandiani and Banks).

Utilization of Section 8 Housing

Adults Served by Community Rehabilitation and Treatment Programs

Vermont: 2004

	General Population			CRT Program Service Recipients			Relative Utilization Rate
	2003 VT Population	# in Section 8 Housing	% in Section 8 Housing	FY 2004 Caseload	# in Section 8 Housing	% in Section 8 Housing	
Total	619,116	7,371 ± 56	1.2% ± 0.0%	3,149 ± 24	667 ± 54	21.2% ± 1.7%	17.8 ± 1.4
Male	304,102	2,395 ± 25	0.8% ± 0.0%	1,457 ± 16	307 ± 32	21.1% ± 2.2%	26.7 ± 2.8
Female	315,014	4,976 ± 50	1.6% ± 0.0%	1,692 ± 18	360 ± 43	21.3% ± 2.6%	13.5 ± 1.6
Age 18-34	134,377	2,321 ± 33	1.7% ± 0.0%	656 ± 9	136 ± 23	20.8% ± 3.5%	12.0 ± 2.1
35-49	149,789	2,471 ± 37	1.6% ± 0.0%	1,252 ± 18	302 ± 38	24.1% ± 3.1%	14.6 ± 1.9
50-64	117,316	1,524 ± 22	1.3% ± 0.0%	914 ± 13	192 ± 27	21.0% ± 3.0%	16.2 ± 2.3
65+	80,132	1,055 ± 13	1.3% ± 0.0%	327 ± 5	37 ± 11	11.3% ± 3.3%	8.6 ± 2.5
Male 18-34	68,183	678 ± 13	1.0% ± 0.0%	357 ± 7	72 ± 14	20.2% ± 3.9%	20.3 ± 4.0
35-49	73,245	861 ± 17	1.2% ± 0.0%	604 ± 12	141 ± 24	23.3% ± 3.9%	19.8 ± 3.4
50-64	57,989	566 ± 11	1.0% ± 0.0%	394 ± 8	84 ± 16	21.2% ± 4.1%	21.7 ± 4.2
65+	33,968	289 ± 5	0.9% ± 0.0%	101 ± 2	10 ± 4	10.4% ± 4.0%	12.2 ± 4.7
Female 18-34	66,194	1,642 ± 13	2.5% ± 0.0%	298 ± 6	64 ± 18	21.6% ± 6.2%	8.7 ± 2.5
35-49	76,544	1,610 ± 32	2.1% ± 0.0%	648 ± 13	161 ± 30	24.8% ± 4.7%	11.8 ± 2.2
50-64	59,327	957 ± 19	1.6% ± 0.0%	520 ± 10	109 ± 22	20.9% ± 4.3%	13.0 ± 2.7
65+	46,164	767 ± 12	1.7% ± 0.0%	226 ± 4	26 ± 10	11.7% ± 4.5%	7.0 ± 2.7

Analyses are based on anonymous extracts from databases maintained by the Vermont Division of Mental Health and the U.S. Department of Housing and Urban Development (HUD). Individuals in Section 8 Housing include all adults in residence on December 20, 2004. Individuals with Serious Mental Illness (SMI) includes all adults who were served by Vermont Community and Rehabilitation Treatment programs for adults with serious mental illness during fiscal year 2004. Because these data sets do not share unique person identifiers, Probabilistic Population Estimation was used to determine caseload size and overlap (with 95% confidence intervals).

Probabilistic Population Estimation is a statistical procedure that provides valid and reliable measures of the size and overlap of data sets that do not include unique person identifiers. These estimates are based on a comparison of the distribution of dates of birth in the data sets to the known distribution of dates of birth in the general population. This approach is particularly useful where concerns about the confidentiality of medical records limit the use of personally identifying information. For more detail, see: Banks SM & Pandiani, JA (2001) Probabilistic population estimation of the size and overlap of data sets based on date of birth. *Statistics in Medicine*. 20:1421-1430.

Relative Utilization Rate is the % in Section 8 housing for adults with serious mental illness divided by the % in Section 8 housing for the general population. The Relative Utilization Rate may be read as follows: Adults receiving services for serious mental illness in Vermont are 17.8 times as likely as other adult residents to live in Section 8 housing.